

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/041731 A2

(51) International Patent Classification⁷:

A47J

(74) Agent: PETERS, Grant, H.; Barnes & Thornburg LLP,
P.O. Box 2786, Chicago, IL 60690-2786 (US).

(21) International Application Number:

PCT/US2004/034659

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 20 October 2004 (20.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/512,684 20 October 2003 (20.10.2003) US
60/523,177 18 November 2003 (18.11.2003) US

(71) Applicant (for all designated States except US):
BUNN-O-MATIC CORPORATION [US/US]; 1400
Stevenson Drive, Springfield, IL 62703 (US).

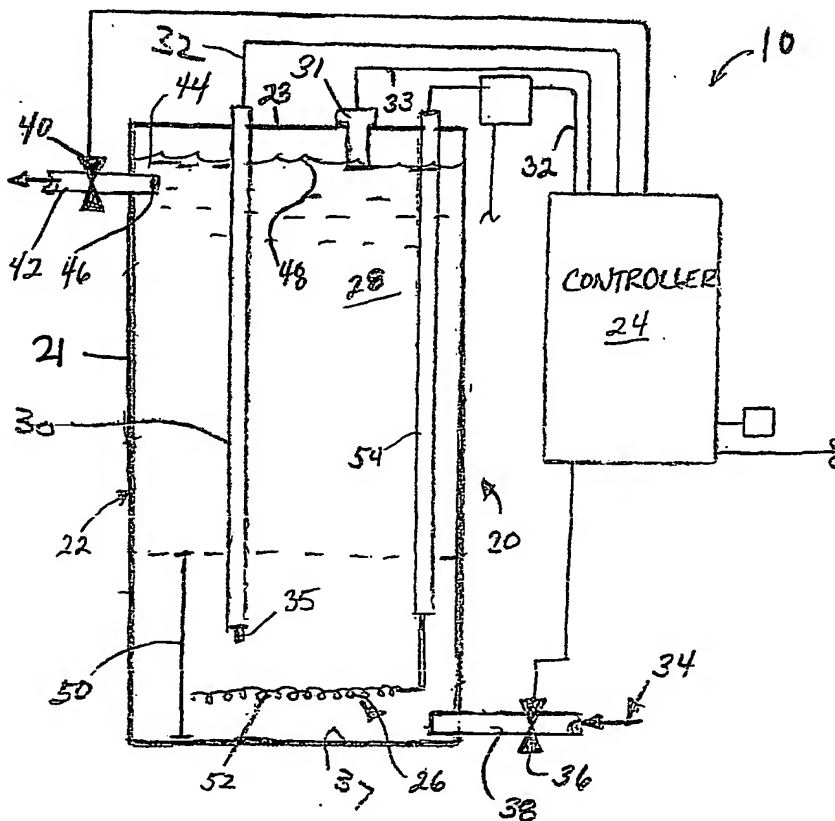
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

(72) Inventor; and

(75) Inventor/Applicant (for US only): **FRIEDRICH, Brent**
[US/US]; #3 Downing Lane, Springfield, IL 62707 (US).

[Continued on next page]

(54) Title: SYSTEM, METHOD AND APPARATUS FOR HEATING WATER



(57) Abstract: Disclosed are a water heating system, a method of heating water and a water heating apparatus for use in providing successive volumes of heated water at a generally consistent temperature. In one aspect of the disclosure, a water heating system includes a reservoir for containing water, the reservoir having an inlet zone comprising a lower portion of the reservoir and an outlet zone comprising an upper portion of the reservoir. A water inlet is provided in fluid communication with a source of water and the inlet zone. A heater is positioned within the inlet zone is coupled to the reservoir. A temperature sensor is positioned within the inlet zone, and a water outlet is provided in fluid communication with the outlet zone. A controller is coupled to the heater and the temperature sensor, the controller using information from the temperature sensor to controllably operate the heater to generally maintain a desired temperature within the reservoir.



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *without international search report and to be republished upon receipt of that report*